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The use of depleted uranium munition by the US military in Syria – a legally gray area? Not necessarily...

ELISABETH HOFFBERGER — 31 March, 2017



When the US Pentagon confirmed the use and deployment of depleted uranium munition in Syria, an armed conflict having by far exceeded the level of a civil war, on the 16th of February 2017, it did not take long for public outcry to follow.

Before dipping into the relevant legal repercussions on the Pentagon's statement, it is of pivotal importance to answer a fundamental question first: What actually is depleted uranium and what is depleted uranium munition?

Basically, uranium occurs naturally, such as in rocks, soil, water, animals, plants and even human beings in very small dosages. When nuclear fission was discovered in 1938, naturally occurring uranium underwent an enrichment procedure thereby being used for the development of an abundance of nuclear weapons and nuclear fuel. Depleted uranium, on the other side, is a mere by-product of enriched

uranium, having significantly less radioactivity (approx. 60 % of enriched uranium) but it still constitutes a toxic heavy metal potentially having detrimental effects on the life and health of human beings, animals and the environment. Generally, depleted uranium is being used for a vast amount of civil purposes, such as powering nuclear reactors, radiotherapy and the petroleum industry by alleviating the drilling of crude oil. However, due to its high density it is also being used in form of munition having strong armor-piercing capabilities leading to the destruction of heavy tanks and other military equipment. Furthermore, it has pyrophoric effects capable of burning armors and other military objects. After the deployment of depleted uranium munition, the radioactive effects of depleted uranium remain having entered the environment either by the dust released during the deployment of such weapons or by fragments of munition deeply buried in the soil, or by its pyrophoric effects. This, in turn, poses significant risks to the life and health of people, animals and the environment by contaminating the air, water and soil. A non-peer reviewed study by Iraqi scientists of 2005 dealing with the use of depleted uranium weapons during the US-led invasion in Iraq in 2003 revealed that the radioactive remnants reportedly had carcinogen effects and caused abnormal developments of children, such as organ damage and deformities of limbs. A report conducted by Royal Society in 2002 on the health hazards of depleted uranium munition also stressed that depleted uranium munition is poisonous and highly toxic if exposure reaches a certain level but at the same time calls into question if such a significant exposure can be reached on the battlefield. Until today, no conclusive answer was provided in order to assess the real adverse health effects caused by depleted uranium munition. What is clear is that depleted uranium munition is capable of causing harm, especially to children, women and vulnerable groups. Therefore, it is necessary to determine, how international law responds to depleted uranium munition.

In order to answer this question, international law needs to be analyzed from a twofold-perspective. First, relevant arms control treaties curbing and limiting the use of certain types of weapons may be relevant for depleted uranium munition. Second, humanitarian law, most notably the four Geneva Conventions of 1949, may provide

answers on how to regulate the use and deployment of such technology.

Arms control treaties

Depleted uranium munition is not explicitly covered by existing arms control treaties, such as the **Protocol on Prohibitions or Restrictions on the Use of Incendiary Weapons** (Protocol III) of the Conventional Weapons Convention of 1980, the Biological Weapons Convention of 1972 or the Chemical Weapons Convention of 1992.

However, some provisions enshrined in these treaties could theoretically be relevant for depleted uranium munition given the fact that incendiary effects, chemical intoxication and contamination may occur in case of the deployment of depleted uranium munition. In this regard, it has to be taken into consideration that both Protocol III of 1980 and the Chemical Weapons Convention of 1992 only prohibit weapons, whose *direct* effects have an incendiary power or lead to intoxication respectively. Side-effects of a weapon unfolding after the time of direct exposure are not covered by these treaties. Insofar, depleted uranium munition is not covered by these treaties because the direct effect of depleted uranium munition is a mere physical impact, whereas incendiary effects or intoxication occur only as a side-effect after the time of direct exposure. (cf. Art 1 Protocol III and Art 2 para 1 lit b Chemical Weapons Convention). Moreover, depleted uranium munition is not covered by the Biological Weapons Convention either, which only applies to *living* material and microbes.

Insofar, the law of arms control does not apply to depleted uranium munition and therefore other legal regimes have to be taken into consideration, most notably humanitarian law.

Humanitarian Law

According to Art 35 para 2 Additional Protocol I to the Geneva

Conventions of 1949, means and methods of warfare are prohibited which cause superfluous injuries or unnecessary suffering. Arguably, depleted uranium munition increasing the probability of suffering from cancer and other diseases and leading to the contamination of air, soil and water, could, at least as a long-term effect, lead to unnecessary suffering. However, the true content of Art 35 para 2 AP I is still disputed. In its study on customary humanitarian law the ICRC named a few examples of weapons, which have been cited by states as weapons causing superfluous injuries or unnecessary suffering, such as incendiary weapons as well as biological and chemical weapons. These weapons are at the same time prohibited by several arms control treaties, such as the already mentioned Protocol III, the Biological and the Chemical Weapons Convention. However, depleted uranium munition falls outside the scope of these treaties. This in turn raises the question, whether or not depleted uranium munition could fall under Art 35 para 2 AP I at all. It can be argued that even though depleted uranium munition is not covered by existing arms control treaties, the munition could be compared to weapons falling under arms control regimes. However, a mere comparison will be a challenging task. Depleted uranium munition differs significantly from those weapons, which have already been cited as causing superfluous injuries or unnecessary suffering. First and foremost, depleted uranium munition is – in contrast to more conventional weapons – an anti-matériel weapon aimed at hitting military objectives, such as tanks. Second, the dangerous and toxic side-effects of depleted uranium munition unfold indirectly and most probably after the time of direct exposure. Insofar, the mere comparison of depleted uranium munition with weapons already cited as weapons causing superfluous injuries or unnecessary suffering does not lead to a satisfying solution (without saying that a comparison is not possible at all). Considerably more, one must evaluate the true *effects* of depleted uranium munition as required by the ICRC. Assessing the effects of a weapon can be a challenging task since there is no uniform doctrine what the term “effects” actually means.

For some countries, the term “effects” means that a balance has to be struck between the military advantage anticipated and the suffering caused. In case the suffering exceeds the military advantage, the

“effects” of a weapon cause superfluous injuries or unnecessary suffering. This seems to reflect the view of the ICJ highlighted in its advisory opinion on Nuclear Weapons, according to which unnecessary suffering is the “harm greater than the unavoidable to achieve legitimate military objectives”. This indicates that Art 35 para 2 AP I implies considerations of proportionality when trying to assess which weapons actually cause superfluous injuries or unnecessary suffering. However, the object and purpose of the Geneva Conventions as to protect civilians but also combatants from exceedingly intense suffering due to the causes of war does not allow for such an approach in all circumstances. The almost inflationary invocation of the principle of proportionality could lead to an abuse of rights justifying the use of almost all weapons on the grounds of military necessity. Instead, two other factors should be taken into consideration when trying to assess which weapons fall under Art 35 para 2 AP I. First, a state has to evaluate whether *alternatives* are at stake. This stance has been taken by the United States and the United Kingdom. Second, the *long-term effects* of a weapon play a significant role in interpreting Art 35 para 2 AP I. According to the US Air Force Pamphlet, weapons are prohibited which inevitably lead to permanent disability. These two factors, alternatives and long-term effects, give far better answers to the questions raised above and beyond that are compatible with the object and purpose of the Geneva Conventions. Regarding depleted uranium munition it has to be stressed that the United States does have alternatives at stake, such as armor piercing munition which do not disperse uranium as a side effect. Furthermore, the long-term effects of depleted uranium munition indeed leads to inevitable and permanent disabilities. There is still research being conducted on the concrete long-term effects. However, since severe long-term effects cannot be entirely excluded, states have to abstain from the use of depleted uranium munition. Calling upon states to take into consideration these two components, alternatives and long-term effects, is a rather motivated approach. While most states consistently condemn weapons rendering death inevitably by causing exceedingly intense harm (such as dum-dum bullets), depleted uranium munition “merely” causes cancer or other diseases and intoxication of people, as well as contamination of soil and water. Due to the fact that depleted uranium munition does not render death inevitably, state practice is

relatively reserved when it comes to the condemnation of this technology. However, the United States and the United Kingdom military manuals as well as the US Air Force Pamphlet could serve as a helpful means of interpretation in order to assess which weapons fall under Art 35 para 2 AP I.

Furthermore, depleted uranium munition could violate the prohibition of indiscriminate attacks, one of the most important provisions of humanitarian law requiring states to distinguish between combatants and civilians and civilian and military objectives. Since depleted uranium munition may indeed distinguish between military and civilian objectives in the time of impact, the long-term effects of depleted uranium munition concern both combatants and civilians where a distinction is not possible anymore. According to Art 51 para 4 lit c AP I, methods or means of warfare are prohibited the *effects* of which cannot be limited as required by this Protocol. The term “effects” indicates that the result of a weapon needs to be taken into consideration as well and not just the site of impact when aiming to assess which weapons violate the prohibition of indiscriminate attacks. Since a distinction between civilians and combatants as well as civilian and military objectives cannot be guaranteed – at least when it comes to long-term effects – the use of depleted uranium munition violates Art 51 para 4 lit c AP I.

However, in case of the prohibition of indiscriminate attacks, Art 57 para 2 lit iii foresees that a proportionality test must be applied when trying to assess whether a weapon fulfills the requirement of an indiscriminate attack. The use of depleted uranium munition, even though this technology cannot distinguish between civilians and combatants at least when it comes to long-term effects, may be justified on the grounds that the military advantage anticipated was higher than the suffering caused. One could counter that the application of a proportionality test to weapons, whose effects are comparable to the effects of weapons which are at the same time covered by existing arms control treaties (it was raised before that such a comparison proves to be a little problematic but it is possible), must be particularly strict due to the strong condemnation of these weapons by the international community. The referral to arms control

treaties in order to interpret the proportionality test in relation to depleted uranium munition can be based on Art 31 para 3 lit c VCLT, according to which all relevant treaties to the parties may be used in order to interpret a treaty. As a result, the application of a strict proportionality test leads to the fact that the use of depleted uranium munition may only be justified in very “exceptional circumstances”. The decision will have to be based on a case-by-case assessment taking into consideration the relevant individual circumstances.

Conclusion

Summarizing, it can be noted that the prohibition to cause superfluous injuries or unnecessary suffering needs to take into consideration the alternatives at stake and the long-term effects of a weapon. Even though state practice is relatively restrained when it comes to the consideration of these criteria, the United States’ and United Kingdom’s military manuals as well as the US Air Force’ Pamphlet could serve as a guiding benchmark in the right direction. Regarding the prohibition of indiscriminate attacks, it can be concluded that AP I also requires to take into consideration (long-term) effects of a weapon in order to assess whether a weapon violates that principle. Even though, the prohibition of indiscriminate attacks can be justified by the invocation of the principle of proportionality, the standards for the application are comparatively high given the fact that the effects of depleted uranium munition is comparable to weapons already covered by existing arms control treaties and due to the fact that the international community almost unanimously condemns the deployment of such weapons. All in all, it all comes down to the willingness of states to better for them to adhere to humanitarian law and to better take into consideration the life and future of children, women and men suffering tremendously from the ongoing and seemingly endless war in Syria.

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